

=> d 113 1-8 ti

- L13 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
TI A reduction inhibitory agent for active-oxygen eliminating activity
- L13 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
TI Formation of various koji-oligosaccharides by a novel enzyme, kojibiose phosphorylase
- L13 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
TI α -Isomaltosylglucosaccharide synthase from Bacillus and Arthrobacter catalyzing synthesis of cyclic tetrasaccharide, and food, cosmetics, and pharmaceutical applications
- L13 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
TI α -Isomaltosyltransferase catalyzing synthesis of cyclic tetrasaccharide from Bacillus and Arthrobacter, isolation, and food, cosmetics, and pharmaceutical applications
- L13 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
TI Efficient enzymatic synthesis of disaccharide, α -D-galactosyl α -D-glucoside, by trehalose phosphorylase from Thermoanaerobacter brockii
- L13 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
TI Reduction inhibitory agent for active-oxygen eliminating activity
- L13 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
TI Kojibiose phosphorylase, its preparation and use
- L13 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
TI Synthesis by an α -glucosidase of glycosyl- trehaloses with an isomaltosyl residue

=> d 113 8 ibib abs

- L13 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:308881 CAPLUS <<LOGINID::20080227>>
DOCUMENT NUMBER: 127:16515
TITLE: Synthesis by an α -glucosidase of glycosyl-
trehaloses with an isomaltosyl residue
AUTHOR(S): Kurimoto, Masashi; Nishimoto, Tomoyuki;
Nakada, Tetsuya; Chaen, Hiroto; Fukuda, Shigeharu; Tsujisaka, Yoshio
CORPORATE SOURCE: Hayashibara Biochemical Laboratories, Inc., Okayama,
700, Japan
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CODEN: BBBIEJ; ISSN: 0916-8451
PUBLISHER: Japan Society for Bioscience, Biotechnology, and Agrochemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Glycosyl trehaloses with an isomaltosyl residue were synthesized by α -glucosidase from Aspergillus niger by using maltotetraose as a glucosyl donor and trehalose as the acceptor. The 1 trisaccharide and 2 tetrasaccharides formed were isolated by successive

column chromatog. The results of enzymic digestion, methylation anal., and 13C-NMR studies indicated that these oligosaccharides were α -isomaltosyl α -glucoside, α -isomaltotriosyl α -glucoside, and α -isomaltosyl α -isomaltoside. These oligosaccharides were not fermented to an acid by Streptococcus mutans and they effectively inhibited water-insol. glucan synthesis from sucrose by glucosyltransferase. In an in vitro utilization test with human intestinal bacteria, these oligosaccharides were predominantly utilized by Bifidobacteria.

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L1	STRUCTURE UPLOADED
L2	0 S L1 SAM SSS
L3	6 S L1 FULL EXACT

FILE 'CAPLUS' ENTERED AT 13:51:43 ON 27 FEB 2008

L4	8 S L3
L5	7 S L4 AND PY<=2004
L6	1 S L4 NOT L5

FILE 'REGISTRY' ENTERED AT 14:34:43 ON 27 FEB 2008

E A-D-GLUCOPYRANOSIDE, O-A-D-GLUCOPYRANOSYL-(1.3)-B-D-GLUCOPYRA

FILE 'REGISTRY' ENTERED AT 14:36:46 ON 27 FEB 2008

L7	1 S 832700-09-1/RN
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FILE 'CAPLUS' ENTERED AT 14:37:31 ON 27 FEB 2008

L8	1 S 832700-09-1/RN
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E NISHIMOTO T/AU
E NISHIMOTO TO/AU

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L9 0 S NISHIMOTO TOMOYUKI/AU OR WATANABE HIKARU/AU OR FUKUDA SHIGEHA

FILE 'CAPLUS' ENTERED AT 14:47:06 ON 27 FEB 2008
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L11 81 S L10 AND TREHALOSE
L12 49 S L11 AND PY<=2003
L13 8 S L12 AND GLUCOSYL

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